REMARKS

Claims 1-22 are pending. Claims 2-4, 9-11 and 19-22 have been canceled, without prejudice or disclaimer of subject matter. Claims 1, 5-8 and 12-18 have been amended. Support for the claim changes can be found in the original disclosure, and therefore no new matter has been added. Claims 1, 8 and 15-18 are in independent form.

In the final Office Action dated March 28, 2006, Claims 1-3, 8-10 and 15-18 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,560,575 (*Keiller*), Claims 4-7 and 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Keiller* in view of U.S. Patent No. 6,556,841 (*Yu*), and Claims 19-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Keiller* in view of U.S. Patent Application Publication No. 2005/0131673 (*Koizumi et al.*). In regard to the rejections of Claims 2-4, 9-11 and 19-22, it is noted that those claims have been canceled. In view of the rejections of Claims 1, 5-8 and 12-18, Applicant respectfully submits the following remarks.

Without conceding the propriety of the rejections, the claims have been amended. It is noted that the independent claims have been amended to include subject matter of Claims 2, 4, and 19, which have been canceled herein. Applicant submits that the claims as amended are patentable over the cited art for at least the following reasons.

Independent Claim 1 recites, *inter alia*, display control means for controlling displaying of a recording character string indicating a sentence to be recorded, re-input instruction means for issuing an instruction to input speech once again when it is determined by determination means that a matching rate (of a recognized character string pattern with a recording character string pattern) does not exceed a

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predetermined level, and presentation means for presenting to a user an unmatched portion between the recognized character string pattern and the recording character string pattern. Each of independent Claims 8 and 15-18 recites, *inter alia*, the same or similar features. Applicant respectfully submits that none of the cited art would teach or suggest at least these features recited in the independent claims.

Keiller relates to a speech processing apparatus and method trained by generated word models. According to *Keiller*, a user's first utterance (training example) is compared to a user's second utterance, and the apparatus compares the two training examples (user's utterances). If the two training examples are found to be consistent, a word model is generated from them.

Regarding the claimed re-input instruction means (which was formerly recited in Claim 2), in the March 28, 2006 Office Action the Examiner cited col. 15, lines 32-35 of *Keiller* as teaching this feature. According to the cited portion of *Keiller*, "If [two training examples] are inconsistent, then . . . If one [of the] example[s] is already a word model . . . then the other example is discarded and an extra example is required." Thus, this portion concerns two training examples, i.e., two user's utterances (e.g., of the same word). In contrast, the claimed re-input instruction means involves a matching rate between a pattern of a recording character string indicating a sentence to be recorded (e.g., read out by a user) and a pattern of a recognized character string (recognized input speech of a displayed sentence (recording character string) read out by a user). That is, the claimed re-input instruction means involves a matching rate between a user's utterance (recognized input speech) and a recording character string. *Keiller* 's invention involves comparing two user's utterances, but does not suggest a comparison or matching

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rate between a user's utterance and a recording character string. Accordingly, *Keiller* is not understood to teach or suggest the claimed re-input instruction means.

None of the other art cited in the Office Action is alleged by the Examiner, or understood by Applicant, to remedy this deficiency of *Keiller* with respect to the independent claims.

Yu relates to methods of spell checking and correcting of character strings input into a mobile communication device, which typically has a small keypad that increases the likelihood of errors made by users in typing in words. According to *Yu*, words typed in by a user are (spell-)checked by comparison to entries in a dictionary (pre-stored in the device), and corrected according to a correction algorithm involving character substitution and repeated dictionary look-up.

Regarding the claimed presentation means (which was formerly recited in Claim 4), in the March 28, 2006 Office Action the Examiner cited col. 5, lines 15-22 of *Yu* as teaching this feature. Col. 5, lines 10-29 of *Yu* reads as follows:

> The invention pertains to systems and methods for implementing spell checking and correction applications [for] two-way mobile communication devices having display screens and a telephone-type keypad (e.g., keys 0-9, "*", "#" etc.), where the characters are mapped onto each key in a many to one fashion. According to one embodiment of the present invention, when the end of a character string (e.g., a word) is indicated by the input of a termination symbol (e.g., a space or "#") then that character string is compared to a plurality of character strings stored in a dictionary. If no substantial match is found for the character string in the dictionary then it [is] assumed that the character string is misspelled. Individual character elements of the subject character string are then systematically replaced by character elements mapped to the same key and each combination is compared to the entries resident in the dictionary. Matching character strings are retrieved and presented to the user for examination and selection or, if so desired, the most likely matching character string automatically replaces the misspelled character string.

As explained above, according to *Yu*, in a case where an input character string does not match any entries in a dictionary, individual characters of the string are systematically replaced by other characters and compared to the dictionary entries. When a matching character string is obtained (i.e., a string that matches some entry in the dictionary and therefore could be the correct word, i.e., the word intended to have been input), the matching string is presented to the user. Thus, according to *Yu*, the user is presented with <u>matching</u> character strings (character-substituted input character strings matching dictionary entries), not with an <u>unmatched</u> portion between a recognized character string pattern and a recording character string pattern. Neither the character-substituted input character strings nor the dictionary entries are recognized character strings or recording character strings, as those terms are defined in the independent claims (*Yu* does not involve (inputted) speech or speech recognition). Nothing in *Yu* is understood to teach or suggest the claimed presentation means.

None of the other art cited in the Office Action is alleged by the Examiner, or understood by Applicant, to remedy this deficiency of *Yu* with respect to the independent claims.

Koizumi et al. relates to a speech translation device. For example, where a tourist traveling in a foreign country (whose language he does not know) wishes to utter a sentence in the local language, the device helps the tourist quickly find the sentence in his native language and then translates it for him into the local language. In order to use the device, the user first utters a keyword. Then the device recognizes the uttered keyword and retrieves appropriate sentence templates (sentence templates pertinent to the keyword). A sentence template includes a slot, which is a portion of the sentence that

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can be replaced by the user. For example, if the user utters the keyword "telephone," the device retrieves sentence templates such as "Where is a [telephone]?", "Please tell me how to place a [local call].", "I'd like to place a [collect call] to [Japan].", and so on. (The bracketed portions in the sentence templates represent slots.) The user searches for a sentence template that he can use, e.g., by changing the expressions in the slots, to express his desired sentence. Upon finding such a sentence template, the user may have the device translate the sentence for him (if he does not need to change the expressions in the slots) or he may speak a sentence (or part of a sentence) and may include in the sentence his desired expressions in the slots. For example, the user may utter "I'd like to place an international call to Canada." The device then performs speech recognition on the user's utterance. If the device does not correctly recognize the user's utterance, the user may correct the device. When the device correctly recognizes the user's utterance, the user instructs the device to translate the utterance.

Regarding the claimed display control means (which was formerly recited in Claim 19), in the March 28, 2006 Office Action the Examiner cited col. (page) 5, paragraph [0053] of *Koizumi et al.* as teaching this feature. The cited portion of *Koizumi et al.* describes a portion of the above-described operation of the *Koizumi et al.* device, namely, performing speech recognition of the user's utterance, which the user utters while viewing a sentence display screen. As understood from the above-described operation of the *Koizumi et al.* device, however, that device does not display a character string <u>indicating a sentence to be recorded</u>. The sentence templates displayed by the *Koizumi et al.* device are not sentences to be recorded. As explained above, the user may utter a sentence template or portion thereof, and he will often replace the expressions in

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the slots (occasionally a given sentence template may match the user's desired sentence, so that the user utters the sentence template). However, the sentence templates are not (supposed) to be uttered by the user. Rather, the user is to utter his desired sentence. In addition, the sentence templates are not to be recorded. Rather, the sentence templates are intended to lead the user to his desired sentence, and the sentence templates -- as modified according to the user's desire -- are intended to be translated. *Koizumi et al.*'s device is not engaged in recording speech, e.g., for the purpose of being trained to recognize speech. Rather, the device is for the purpose of translating a user's desired sentence. Nothing in *Koizumi et al.* is understood to teach or suggest the claimed display control means.

None of the other art cited in the Office Action is alleged by the Examiner, or understood by Applicant, to remedy this deficiency of *Koizumi et al.* with respect to the independent claims.

Since none of *Keiller*, *Yu* and *Koizumi et al.*, whether taken singly or in combination, is understood to contain all of the elements of any of Applicant's independent claims, those claims are believed allowable over those documents.

Moreover, the independent claims are believed allowable over those documents also because, as explained below, the proposed combinations of those documents are understood to be impermissible.

Each of *Keiller*, *Yu* and *Koizumi et al.*, relates to a different field of endeavor and is directed to an entirely different problem. *Keiller* is directed to improving speech recognition and training to that end. *Yu* is directed to spelling error detection and

correction in a mobile communication device. *Koizumi et al.* is directed to assisting in translation. Neither *Yu* nor *Koizumi et al.* is directed to speech recognition.

Yu's invention does not perform speech recognition and has no concern with speech recognition or training therefor. Rather, *Yu*'s invention is concerned with correcting writing, in a machine which uses only written language, not spoken language.

Although *Koizumi et al.* performs speech recognition, it does so merely in the service of locating the user's desired sentence to be translated. *Koizumi et al.* is directed to problems of translation, not to problems of speech recognition.

In view of the different fields of endeavor and entirely different problems to which the three above-discussed documents pertain, it is submitted that they are not analogous art. See M.P.E.P. 2141.01(a), 2145.IX.

Further, it is submitted that, for the reasons set forth below, there is no suggestion or motivation to combine any of the three above-discussed documents, to be found in the documents themselves or in the knowledge generally available to one of ordinary skill in the art. See M.P.E.P. 2143.01, 2145.X. It is submitted that the obviousness rejections in the Office Action are based on impermissible hindsight. See M.P.E.P. 2145.X. In this regard, it is noted that the motivations cited in the Office Action are understood to be invalid.

Specifically, with regard to combining *Yu* with *Keiller*, the Office Action (page 8) cites the motivation "to identify unrecognized character strings (e.g. misspelled words) and to provide a notification or indication [thereof]" (*Yu*, col. 6, lines 26-28). However, such motivation has no application to *Keiller*, since *Keiller* is concerned with

speech recognition, not at all with spelling. Misspellings are not a problem in, or relevant to, *Keiller*'s subject matter.

With regard to combining *Koizumi et al.* with *Keiller*, the Office Action (page 12) cites the motivation "so aloe [sic, to allow] the user to be free from troublesome manipulation for replacing a word" (*Koizumi et al.*, Abstract). The context of this motivation is "since the user can input and speak an arbitrary expression in a slot of a sentence template, the user is free from a troublesome manipulation for replacing a word in the slot" (page 7, paragraph [0067]. This motivation has no relevance to *Keiller*'s subject matter/problem of improving speech recognition by specific training therefor. There is no need for a user of *Keiller*'s invention to replace words (or to find his desired ("arbitrary," from the point of view of the device) expression for a slot). Rather, in *Keiller*'s invention, the user utters specific words determined by the training regimen. Thus, the cited motivation arises only for *Koizumi et al.*'s translation scheme, in which there is a goal of helping a user arrive at the translation of his desired sentence more easily and quickly.

In conclusion, since the cited art does not teach or suggest all of the elements of the independent claims, for at least the reasons set forth above, and since the proposed combinations are impermissible, for at least the reasons set forth above, the independent claims are submitted to be allowable over the cited art.

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. These claims are therefore believed patentable over the art of record.
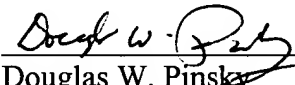
The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

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